IN 3 Rec'd PCT/PTO 28 MAR 2006

Approved for use through 3/31/2007. OMB 0651-0021 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

INTERNATIONAL APPLICATION NO. September 2003 PCT/US04/31699 27 September 2004 TITLE OF INVENTION Product to Tailor Distributions of Energy Deposition by a High Energy Photon Beam APPLICANT(S) FOR DO/EO/US Reiffel, Leonard Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information: 1. This is a FIRST submission of items concerning a submission under 35 U.S.C. 371. This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371. This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. The US has been elected (Article 31). A copy of the International Application as filed (35 U.S.C. 371(c)(2)) is attached hereto (required only if not communicated by the International Bureau). has been communicated by the International Bureau. is not required, as the application was filed in the United States Receiving Office (RO/US). An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). is attached hereto. has been previously submitted under 35 U.S.C. 154(d)(4). Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) are attached hereto (required only if not communicated by the International Bureau). have been communicated by the International Bureau. have not been made; however, the time limit for making such amendments has NOT expired. have not been made and will not be made. An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). \times An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). An English language translation of the annexes of the International Preliminary Examination Report under PCT 10. l Article 36 (35 U.S.C. 371(c)(5)). Items 11 to 20 below concern document(s) or information included: 11. X An Information Disclosure Statement under 37 CFR 1.97 and 1.98. An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. A preliminary amendment. An Application Data Sheet under 37 CFR 1.76. 15. L A substitute specification. 16. 🔀 A power of attorney and/or change of address letter. A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825. 17. A second copy of the published International Application under 35 U.S.C. 154(d)(4). 18. A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). 19.

11 To rec'd PUTIPTO 28 MAR 2005

PTO-1390 (Rev. 07-2005)
Approved for use through 3/31/2007. OMB 0651-0021
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. APPLICAT	9°0°/57	37 15 °	PCT/US04/316		ATTORNEY'S DO	OCKET NUMBER
	items or information					
The foll	owing fees have b	een submitted			CALCULATIONS	PTO USE ONLY
	c national fee (37	\$ 300.00				
If the written opin	nination fee (37 CF nion prepared by IS US indicates all cl	\$ 200.00				
23. Searlf the written opin IPEA/US Search fee (37 C International Searpreviously	rch fee (37 CFR 1. ion of the ISA/US indicates all claim FR 1.445(a)(2)) had onal Searching Au irch Report prepar y communicated to	\$100.00				
	TOTAL OF 21, 22	\$600.00				
sequenc electroni	e for specification e listing in complia c medium) (37 CF s \$250 for each ad Extra Sheets					
- 100 =	/50 =		up to a whole number)	× \$250	\$	l
Surcharge of \$1:	30.00 for furnishing		ch fee, examination fee, or the ge (37 CFR 1.492(h)).		\$	
CLAIMS			NUMBER EXTRA	NUMBER EXTRA RATE		
Total claims	20	- 20 =	0.	x \$ 50	\$ O	
Independent clai	ms 2	- 3 =	0	× \$200	\$ O	
MULTIPLE DEPI	ENDENT CLAIM(S	(if applicable)		+ \$360	\$0	
		\$600.00				
Applicant cla	ims small entity st					
		\$ 300.00				
	f \$130.00 for furnitiate (37 CFR 1.49)	8				
		\$ 300.00				
			1.21(h)). The assignment mu \$40.00 per property	st be accompanied +	\$	<u> </u>
		\$ 300.00				
					Amount to be refunded:	\$
					Amount to be charged	\$

10/573715 'AP9Rec'dPCT/PTO 28 MAR 2006

PTO-1390 (Rev. 07-2005)
Approved for use through 3/31/2007. OMB 0651-0021
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

ove fees is enclosed.									
\$ to cover the above fees.									
The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No A duplicate copy of this sheet is enclosed.									
Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card Information should not be included on this form. Provide credit card information and authorization on PTO-2038.									
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.									
SIGNATURE William J. Hallihan NAME 39,210 REGISTRATION NUMBER									

3 Rec'd PCT/PTO 28 MAR 2006

10/573715 Approved for use through 3/31/2007. OMB 0651-0021 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL LETTER TO THE UNITED STATES RECEIVING OFFICE									
Express Mail	mailing	number:	EO 919 04	49 291 t	JS	Date of deposit: March 28, 2006			
File reference no.: HYDRA In					International application no. (if known):PCT/US04/31699				
Title of the inv	vention:	Produc	t to Tailo	or Distr	ibutions of	Energy Deposition by a High			
Energy Photon Beam Earliest priority date claimed (Day/Month/Year): 29 September 2003									
☐ This is	a new I	nternatio	nal Applicatio	on					
SCREENING	DISCL	OSURE	INFORMAT	ION:					
	eign trar	nsmittal sh	ould and could			r purposes of determining whether a poses, the following information is			
☐ The inv	ention d	isclosed w	as not made i	n the Unite	d States of Americ	a.			
☐ There is	There is no prior U.S. application relating to this invention.								
The following prior U.S. application(s) contain subject matter which is related to the invention disclosed in the attached international application. (NOTE: priority to these applications may or may not be claimed on the Request (form PCT/RO/101) and this listing does not constitute a claim for priority.)									
application	no.				filed on				
application	no.				filed on				
and inventio	DOE on in a m iate defe	S NOT A anner whi nse agenc	LTER ch would requ	MIC ire the U.S		ERED TO ALTER the general nature of the we been made available for inspection by the			
Sheets of Rec	quest for	m:		To	Check no.: 1397				
Sheets of description (excluding sequence listing):			R	Return receipt postcard: 1					
Sheets of clai	ms:			Р	Power of attorney: 1				
Sheets of abstract:			C	Certified copy of priority document (specify):					
Sheets of drawings:			0	ther (specify):					
Sheets of sequence listing:				3 page transmittal letter to the United States Designated/Elected Office Concerning					
			а	a submission under 35 USC 371 2 page declaration for utility patent					
					ation disclosure statement				
The person signing this		Applica	nt						
form is:	X	Attorne	y/Agent (Reg.	No.)	Name of person signir	g William J. Hallihan			
	39, 210			an amil					
		Common	Representativ	/e	Signature /	ion J. Hallihr			

This collection of information is required by 37 CFR 1.10 and 1.412. The information is required to obtain or refain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.